

AMENDMENTS TO THE CLAIMS

Please cancel Claim 1; amend Claims 2, 4-6, 9 and 12; and add new Claims 16 and 17 as follows.

LISTING OF CLAIMS

1. (cancelled)

2. (currently amended) An activation signal output circuit according to claim [[1]] 16, wherein a cutoff frequency f_c of the high pass filter characteristic is set lower than a frequency ($F = 1/T$) corresponding to an intermittent incoming period T of the radio frequency signal intermittently transmitted.

3. (previously presented) An activation signal output circuit according to claim 2, wherein the capacitor C is set for a desired cutoff frequency f_c to satisfy

$$2\pi f_c \cdot C \cdot |Z| \approx 1$$

with respect to an input impedance Z of the amplifier circuit of which an input side is connected with the capacitor C.

4. (currently amended) An activation signal output circuit according to claim 1, wherein An activation signal output circuit comprising:

multiple stages of amplifier circuits in a plurality of stages, wherein a radio frequency signal intermittently transmitted is detected to thereby generate a detection signal, and an activation signal indicating that the radio frequency signal has been detected is output in accordance with the detection signal, wherein

a capacitor C inserted in series in a signal transfer line in any one interstage portion of the amplifier circuits, whereby a high pass filter characteristic is provided; and

a low pass filter characteristic is provided to the amplifier circuits by limiting a bias current flowing to transistors constituting the amplifier circuits to a minimized value, and a band pass filter characteristic is provided by using the low pass filter characteristic and a high pass filter characteristic provided with the capacitor.

5. (currently amended) ~~An activation signal output circuit according to claim 1, wherein, An activation signal output circuit comprising:~~

multiple stages of amplifier circuits in a plurality of stages, wherein a radio frequency signal intermittently transmitted is detected to thereby generate a detection signal, and an activation signal indicating that the radio frequency signal has been detected is output in accordance with the detection signal, wherein

a capacitor C inserted in series in a signal transfer line in any one interstage portion of the amplifier circuits, whereby a high pass filter characteristic is provided; and

of the amplifier circuits, an amplifier circuit in a foremost stage that detects and rectifies a radio frequency signal comprises:

a detector diode that detect the radio frequency signal;

a differential amplifier that includes differential pair transistors TrL and TrR; and

a current mirror circuit that regulate a current of the differential amplifier,

wherein a base current of TrL which is one of the differential pair transistors substantially matches with a direct current component of a current flowing in the detector diode, and a sum of currents flowing in the differential pair transistors TrL and TrR are regulated by the current mirror circuit to be substantially constant.

6. (currently amended) ~~An activation signal output circuit according to claim 1, wherein, An activation signal output circuit comprising:~~

multiple stages of amplifier circuits in a plurality of stages, wherein a radio frequency signal intermittently transmitted is detected to thereby generate a detection signal, and an activation signal indicating that the radio frequency signal has been detected is output in accordance with the detection signal, wherein

a capacitor C inserted in series in a signal transfer line in any one interstage portion of the amplifier circuits, whereby a high pass filter characteristic is provided; and

of the amplifier circuits, the amplifier circuit in the foremost stage that detects and rectifies the radio frequency signal further comprises a voltage-doubler detector circuit, and the detector diode for detecting the ratio frequency signal constitutes a part of the voltage-doubler detector circuit.

7. (previously presented) An activation signal output circuit according to claim 2, wherein a low pass filter characteristic is provided to the amplifier circuits by limiting a bias current flowing to transistors constituting the amplifier circuits to a

minimized value, and a band pass filter characteristic is provided by using the low pass filter characteristic and a high pass filter characteristic provided with the capacitor.

8. (previously presented) An activation signal output circuit according to claim 3, wherein a low pass filter characteristic is provided to the amplifier circuits by limiting a bias current flowing to transistors constituting the amplifier circuits to a minimized value, and a band pass filter characteristic is provided by using the low pass filter characteristic and a high pass filter characteristic provided with the capacitor.

9. (currently amended) An activation signal output circuit according to claim 2, wherein, ~~of the amplifier circuits, an~~ the first amplifier circuit ~~in a foremost stage that detects and rectifies a radio frequency signal comprises:~~

a detector diode that detect the radio frequency signal;
a differential amplifier that includes differential pair transistors TrL and TrR; and

a current mirror circuit that regulate a current of the differential amplifier,
wherein a base current of TrL which is one of the differential pair transistors substantially matches with a direct current component of a current flowing in the detector diode, and a sum of currents flowing in the differential pair transistors TrL and TrR are regulated by the current mirror circuit to be substantially constant.

10. (previously presented) An activation signal output circuit according to claim 3, wherein, of the amplifier circuits, an amplifier circuit in a foremost stage that detects and rectifies a radio frequency signal comprises:

a detector diode that detect the radio frequency signal;

a differential amplifier that includes differential pair transistors TrL and TrR; and

a current mirror circuit that regulate a current of the differential amplifier,

wherein a base current of TrL which is one of the differential pair transistors substantially matches with a direct current component of a current flowing in the detector diode, and a sum of currents flowing in the differential pair transistors TrL and TrR are regulated by the current mirror circuit to be substantially constant.

11. (previously presented) An activation signal output circuit according to claim 4, wherein, of the amplifier circuits, an amplifier circuit in a foremost stage that detects and rectifies a radio frequency signal comprises:

a detector diode that detect the radio frequency signal;

a differential amplifier that includes differential pair transistors TrL and TrR; and

a current mirror circuit that regulate a current of the differential amplifier,

wherein a base current of TrL which is one of the differential pair transistors substantially matches with a direct current component of a current flowing in the detector diode, and a sum of currents flowing in the differential pair transistors TrL and TrR are regulated by the current mirror circuit to be substantially constant.

12. (currently amended) An activation signal output circuit according to claim 2, wherein, ~~of the amplifier circuits, the first amplifier circuit in the foremost stage that detects and rectifies the radio frequency signal further comprises a voltage-doubler detector circuit, and the detector diode for detecting the ratio frequency signal constitutes a part of the voltage-doubler detector circuit.~~

13. (previously presented) An activation signal output circuit according to claim 3, wherein, of the amplifier circuits, the amplifier circuit in the foremost stage that detects and rectifies the radio frequency signal further comprises a voltage-doubler detector circuit, and the detector diode for detecting the ratio frequency signal constitutes a part of the voltage-doubler detector circuit.

14. (previously presented) An activation signal output circuit according to claim 4, wherein, of the amplifier circuits, the amplifier circuit in the foremost stage that detects and rectifies the radio frequency signal further comprises a voltage-doubler detector circuit, and the detector diode for detecting the ratio frequency signal constitutes.

15. (previously presented) An activation signal output circuit according to claim 5, wherein, of the amplifier circuits, the amplifier circuit in the foremost stage that detects and rectifies the radio frequency signal further comprises a voltage-doubler

detector circuit, and the detector diode for detecting the ratio frequency signal constitutes.

16. (new) An activation signal output circuit comprising:

a first amplifier circuit including therein a detector circuit part that generates a detection signal by detecting a radio frequency signal transmitted intermittently, the first amplifier circuit generating a first signal by amplifying the detection signal of the detector circuit part;

a second amplifier circuit for generating a second signal by amplifying the first signal of the first amplifier circuit;

an output part for outputting an activation signal indicating detection of the radio signal in response to the second signal of the second amplifier circuit; and

a capacitor C provided in a signal transmission line in series between the first amplifier circuit and the second amplifier circuit thereby to provide a high pass filter characteristic.

17. (new) An activation signal output circuit according to claim 17,

wherein the detector circuit part includes a detector diode configured by a transistor.